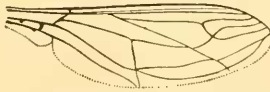


IV. SOME INTERESTING NEW DIPTERA. By S. W. WILLISTON.

Rhynchocephalus Sackenii, n. sp. ♀.

Black with light yellowish hair. Head broader than thorax, brownish black. Front broad, thinly blackish haired on the vertex; the lower part, the face, cheeks, and posterior orbits, with thick, bushy, yellowish white hair, becoming nearly white below. Antennæ short, reddishyellow, base of first joint infuscated, two first joints subquadrate, third circular. Style of three joints, first joint short, yellowish, second joint twice as long, basal half infuscated, third as long as two first, fuscous. Proboscis reaching the hind coxæ, labium black, other parts, with the slender minute palpi, luteous. Dorsum of thorax and scutellum brownish black with yellowish hair; pleuræ and pectus with longer, bushy, grayish white hair. Abdomen short and broad, black; second segment above, and all the segments upon their sides, with yellowish hair, somewhat intermixed with black at the incisures; third and remaining segments above with sparse hairs and thick yellowish tomentum, wanting upon their anterior borders, giving the abdomen a slightly fasciated appearance. Venter with whitish pile. Lamellæ of the ovipositor slender, black, luteous at extreme base, about as long as intermediate femora. Feet luteous. Femora white tomentose, with tufts of hair on their undersides near the coxæ; anterior and middle pairs, for their basal two-thirds, and posterior, except extreme tips, black. Anterior and middle tarsi infuscated, posterior more so, blackish. Wings hyaline; neuration as in the figure:



Adventitious oblique vein but slightly arcuated, terminating beyond the middle of the apical half, not continued to posterior border, so that the third and fifth posterior cells are not completely separated; both cross veins obsolete. Three submarginal cells; first and second open, slender. First posterior open, second closed, the brief petiole terminating in the end of the costal vein before the tip of the wing, fourth (third of Osten-Sacken) closed, as usual; third a little shorter

than fifth. Long. corp. 9^{mm}; long. al. 9^{mm}. Olympia, Washington Territory,—H. K. Morrison.

The present species is a most interesting addition to our fauna. Hitherto only one, possibly two, species of this family and belonging to the short-proboscid division, have been described from North America. The family is subtropical, and the occurrence of the present, the first North American representative of the rhynchocephalous division (*Nemistrinini*), from such high latitude is remarkable, and, moreover, is a striking example of the resemblance pointed out by Baron Osten-Sacken between the Western Asiatic and our Pacific faunæ. Of the genus *Rhynchocephalus*, Schiner considered *R. Tauscherii*, from the region south of the Black Sea, as the type, and which, evidently, is the only known species, beside the present, that will ultimately remain in the genus, so diverse are the other two species, from the same regions, hitherto placed with it. To *R. Tauscherii* (Meig. Sys. Besch., vol. vi, pl. 66, fig. 6) the present species shows a very close resemblance, the length of proboscis and color of the head being the chief differences.

Of the *Nemistrinini*, a fossil species has been described by Dr. Scudder from the Tertiary shales of Florissant, forming the type of a new genus (*Palembolus*, Bul. U. S. Geol. Sur., vol. iv, No. 2, p. 526). So far as I can judge, the genus is nearly related to *Rhynchocephalus*. I would differ somewhat from Dr. Scudder's excellent interpretation of this, the most intricate venation among diptera. It is not the anterior, but the posterior, intercalary vein that is present, as in many *Midasidae*. The vein which he describes as the anterior intercalary, is composed of the anterior basal transverse and the fifth longitudinal. Dr. Loew defined the family as having both intercalary veins, but I can find no evidence of the anterior one.

Silvius pollinosus, n. sp. ♀.

Small, black, thickly grayish white pollinose. Head black, shining, concealed beneath dense gray pollen, ocelli very distinct, area not denuded. Frontal callosity black, shining, doubly rounded above, doubly concave and pointed below. Face with three shining black spots, the middle one smaller, sometimes obsolete. Antennæ fuscous, second joint less than half as long as first, basal joint grayish pollinose and black pilose, base of all the joints somewhat luteous, the third especially so on the inner and upper sides, quinque-annulate, terminal portion black. Palpi reddish, proboscis black. Tho-

rax black and shining where denuded of the gray pollen; three indistinct lighter stripes of the color of front, abbreviated posteriorly. Abdomen thickly pollinose, the blackish, opaque ground-color with narrow whitish posterior borders to all the segments; two series of small, median, more or less indistinct, brownish spots on the anterior parts of second, third, and fourth segments; tip thinly whitish pilose. Legs reddish; ends of all the femora and tibiae, anterior tarsi, middle, and posterior tarsi, except the larger part of basal joint, black. Wings pubescent, hyaline; stigma brown, reaching across the marginal cell, veins at bases of second submarginal, first, second, and fourth posterior cells, with narrow blackish clouds; also a number (4-8) of minute brown spots on all the veins beyond the discal cell. Long. corp. 8^{mm}. Kansas,—E. W. Guild.

Agrees closely in structure—except the pubescent wings—with *S. gigantulus* Lw., the only other North American species, but is very different in coloration.

Chrysops discalis, n. sp. ♀.

Large. Front black, with gray pollen, ocellar area not denuded, callosity small, shining-black, oval. Face yellow, with four small black spots, the upper pair broadly, the lower narrowly separated. Antennae: basal joints fuscous, white pubescent, first joint yellow on inner side, third joint black. Palpi the color of the face, white pubescent. Thorax with four cinereous stripes, leaving black intervals, of which the median is narrow. Scutellum cinereous. Abdomen: first segment black, with a small yellow spot on each side of the scutellum; second segment yellowish cinereous with four black spots, the outer ones smaller and posterior, the median ones larger, subquadrate, anterior, narrowly interrupted; third segment with the four spots subequal, indistinct, posterior part and all the remaining segments blackish, with cinereous pollen and yellowish incisures. Venter reddish yellow with three series of black spots, median ones broad and triangular with the base in front, outer ones small, oval; sixth and seventh segments chiefly black with reddish yellow posterior margins. Legs reddish yellow; extreme tips of all the femora, anterior tarsi and tips of other tarsi black, tips of anterior tibiae infuscated. Wings with pale brownish design. End of first basal cell, all of second and third basal cells, anal angle, large spots in the discal and fifth posterior cell and usual crossband, hyaline. Apical portion grayish, with a distinct brown spot at the furcation of the third longi-

tudinal, covering a stump of a vein. Four specimens. Como, Wyoming, June 20. Long. corp. 10–11^{mm}.

Belongs in the small Mediterranean group with hyaline discal cell. Easily distinguishable from *C. fulvaster* O. S., of the same region, the only other known American species of this group, by its large size, black frontal and facial callosities and the greater hyalinity of the wings. From *C. quadrivittatus* Say, it is also evidently different.